

November 25, 2002

# AGAR ADVISORY

UNITED STATES DEPARTMENT OF AGRICULTURE  
OFFICE OF PROCUREMENT AND PROPERTY MANAGEMENT  
AGAR ADVISORY NO. 49

## Implementation of Section 508 of the Rehabilitation Act of 1973, as amended

**INTRODUCTION:** This Agriculture Acquisition Regulation (AGAR) Advisory provides information regarding implementation of Section 508 of the Rehabilitation Act of 1973, as amended (the Act).

**SUMMARY:** AGAR Advisories 34, 34a, and 34b, now expired, were issued to provide consistent guidance for USDA in the acquisition of electronic information technology (EIT). This Advisory revives those working tools and assembles them into a single directive.

### **SPECIFIC ISSUES:**

The Federal Acquisition Regulation (FAR) provides the regulatory instructions necessary to implement Section 508 in solicitations, contracts, and the supporting acquisition files. The FAR focuses attention on the necessity of trained requirements personnel to prepare statements of work that express the procurement requirement including the need for 508 compliant Electronic and Information Technology (EIT). The requirements personnel are responsible for the market research during which the agency determines both whether commercial EIT will be available in time to meet our need and whether providing conforming EIT would be an undue burden. The market survey results are conveyed with and in the statement of work.

To provide consistent guidance for USDA, this Advisory contains, as attachments, working tools to be provided to the requirements officials. The working tools are not considered codified materials. These are guidance documents designed to ease the management of EIT acquisitions.

*Attachment One* is a sample format for use in making an undue burden determination.

*Attachment Two* is a sample format for use in making an unavailability determination.

*Attachment Three* is a sample format for use in making a determination that the requirements in Federal Acquisition Regulation (FAR) 39.203 do not apply.

*Attachment Four* is a format for use when attachments one to three are not needed.

*Attachment Five* is a sample format for use in making a determination that the requirement is for parts for which no standard exists. Section 508 of the Rehabilitation Act of 1973, as amended applies to all EIT, whether acquired as parts or as a system. However, some parts do not impact information input or output, and therefore not of concern in relation to the Act and its implementing regulation. Application software is an example of a system part that does impact information input or output. A replacement hard drive is an example of EIT that does not impact information input or output in the manner that is addressed in Section 508.

*Attachment Six* is a list of Internet sites which may be accessed as needed to assist in acquisition planning and procurement.

*Attachment Seven* is a sample checklist of the standards found in 36 CFR Part 1194, the accessibility standards. This checklist is dated "Version 05/16/2001." It should not be used when more current versions are made available. If a more current version is available, please forward it to the contact person below.

If you have questions about this advisory, please contact J. R. Holcombe Jr. by telephone at (202) 720-8484, by fax at (202) 720-8972, or by email at [Richard.Holcombe@USDA.gov](mailto:Richard.Holcombe@USDA.gov).

**EXPIRATION DATE:** In effect until cancelled.

**[END]**

## **UNDUE BURDEN DETERMINATION**

The requiring official must provide a written determination to the contracting officer for inclusion in the file. When acquiring commercial items, an undue burden determination is not required to address individual standards that cannot be met with supplies or services available in the commercial marketplace in time to meet the agency delivery requirements.

The determination should describe--

- (1) The commercial items, products or services required to meet the agency's needs.
- (2) The dollar value of the acquisition, including any options.
- (3) The applicable Section 508 standards (see 36 CFR part 1194).
- (4) The market research performed to locate commercial items that meet the applicable standards.
- (5) Which standards can be met and which cannot.
- (6) The undue burden (i.e., the significant difficulty or expense the Government would incur in order to comply with a particular standard). If the monetary expense is deemed prohibitive, explain the costs and how they were estimated. In determining whether compliance with all or part of the applicable accessibility standards in 36 CFR Part 1194 would be an undue burden, an agency must consider—
  - (1) The difficulty or expense of compliance; and
  - (2) Agency resources available to its program or component for which the supply or service is being acquired.
- (7) The steps the agency is taking to reduce use of the undue burden exception in future procurements.
- (8) The alternative means of access that will be provided that will allow the individuals with disabilities to use the information or data. (29 U.S.C. 794d(a)(1)(B)).

Approval of the determination.

The determination must be approved in writing prior to award of the task or delivery order, purchase order or contract. The approving official is the requiring official.

ATTACHMENT TWO TO AGAR ADVISORY NO. 49

**UNAVAILABILITY DETERMINATION**

The requiring official must provide a written determination to the contracting officer for inclusion in the file.

The determination should describe--

- (1) The products or services required to meet the agency's needs.
- (2) The dollar value of the acquisition, including any options.
- (3) The applicable Section 508 standards (see 36 CFR part 1194).
- (4) The market research performed to locate commercial items that meet the applicable standards.
- (5) Which standards can be met and which cannot.
- (6) Which EIT that is not available in the marketplace in compliant form and in time to meet the needs of the agency.
- (7) The steps the agency is taking to avoid the use of the non-compliant EIT, if practicable.
- (8) The alternative means of access that will be provided that will allow the individuals with disabilities to use the information or data. (29 U.S.C. 794d(a)(1)(B)).

Approval of the determination.

The determination must be approved in writing prior to award of the task or delivery order, purchase order or contract. The approving official is the requiring official.

**DETERMINATION THAT FAR 39.203 DOES NOT APPLY  
TO THIS REQUIREMENT**

The requiring official must provide a written determination to the contracting officer for inclusion in the file in order to document that the agency requirements for EIT need not meet the applicable accessibility standards at 36 CFR Part 1194 when:

- (a) it is purchased in accordance with subpart 13.2 (micro-purchases of \$2,500 or less) prior to January 1, 2003. However, contracting officers and other individuals designated in accordance with 1.603-3 are encouraged to comply with the applicable accessibility standards to the maximum extent practicable;
- (b) it is for a national security system;
- (c) it is acquired by a contractor incidental to a contract, or is neither used nor accessed by Federal employees or members of the public;
- (d) it is to be located in spaces frequented only by service personnel for maintenance, repair or occasional monitoring of equipment; or
- (e) it would impose an undue burden on the agency. In determining whether compliance with all or part of the applicable accessibility standards in 36 CFR part 1194 would be an undue burden, an agency must consider —
  - (1) The difficulty or expense of compliance; and
  - (2) Agency resources available to its program or component for which the supply or service is being acquired.

Approval of the determination.

The determination must be approved in writing prior to award of the task or delivery order, purchase order or contract. The approving official is the requiring official.

ATTACHMENT FOUR TO AGAR ADVISORY NO. 49

**DETERMINATION THAT THE REQUIREMENTS ARE 508  
COMPLIANT**

The requiring official should provide written advice to the contracting officer for inclusion in the file that the requirements are compliant and that the determinations in Attachments One to Three are not required for this acquisition. The determining official is the requiring official.

ATTACHMENT FIVE TO AGAR ADVISORY NO. 49

**DETERMINATION THAT NO STANDARD IS AVAILABLE**

When requiring parts as commercial items and no standard exists, the requiring official must provide a written determination to the contracting officer for inclusion in the file.

The determination should describe--

- (1) The commercial items or products required to meet the agency's needs.
- (2) The dollar value of the acquisition, including any options.
- (3) That there is(are) no applicable Section 508 standard(s) (see 36 CFR Part 1194).

Approval of the determination.

The determination must be approved in writing prior to award of the task or delivery order, purchase order or contract. The approving official is the requiring official.

ATTACHMENT SIX TO AGAR ADVISORY NO. 49

**WORKING TOOLS FOUND ON THE INTERNET**

Numerous Section 508 resources are now available on the Internet. The sites identified below may be accessed as needed to assist in acquisition planning and procurement.

A variety of procurement working tools established by the Procurement Policy Division are offered at <http://www.usda.gov/procurement/policy/advisories.html>.

The USDA Office of the Chief Information Officer offers similar links to Section 508 information from <http://www.ocio.usda.gov/irm/508/sec508.html>. Items currently there of special value are specific information on agency contact points within USDA and links to the Department of Justice and Department of Education sites.

The General Services Administration maintains the “Buy Accessible” site at [www.Section508.gov](http://www.Section508.gov). You are able to search the site by specific product or service and see the products of all vendors who have voluntarily provided links. You can then use the links to reach the product or service descriptions necessary to complete your market research. This database at <http://www.section508.gov/index.cfm?FuseAction=Content&ID=99>.

**SAMPLE CHECKLIST OF STANDARDS** (Version 05/16/2001)

1

During Market Research to define needs for electronic and information technology, the requirements official(s) should consider the following measurement indicators and statements from 36 CFR Part 1194, to the products or services needed:

- N No compliance and there is no expectation of compliance.
- E Eventually will be made compliant, but does not comply now.
- S\_\_% Somewhat compliant, and no expectation of full compliance.
- P\_\_% Partially compliant with progress toward full compliance.
- F Fully compliant.

**(1) Equivalent Facilitation:**

People with disabilities are provided substantially equivalent or greater access to and use of items provided through use of designs or technologies other than those prescribed in 36 CFR Part 1194. Explain which features or components use equivalent facilitation and how it provides substantially equivalent or greater access: \_\_\_\_\_

**(2) Software applications and operating systems.**

- (i) When software is designed to run on a system that has a keyboard, product functions are executable from a keyboard where the function itself or the result of performing a function can be discerned textually.
- (ii) Applications do not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications do not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.
- (iii) A well-defined on-screen indication of the current focus is provided that moves among interactive interface elements as the input focus changes. The focus is programmatically exposed so that assistive technology can track focus and focus changes.
- (iv) Sufficient information about a user interface element including the identity, operation and state of the element is available to assistive technology. When an image represents a program element, the information conveyed by the image is also available in text.

- (v) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images is consistent throughout an application's performance.
- (vi) Textual information is provided through operating system functions for displaying text. Text content, text input caret location, and text attributes are available.
- (vii) Applications do not override user selected contrast and color selections and other individual display attributes.
- (viii) When animation is displayed, the information is displayable in at least one non-animated presentation mode at the option of the user.
- (ix) Color coding is not used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
- (x) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels are provided.
- (xi) Software does not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.
- (xii) When electronic forms are used, the form allows people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

### **(3) Web-based intranet and internet information and applications.**

- (i) A text equivalent for every non-text element is provided (e.g., via "alt", "longdesc", or in element content).
- (ii) Equivalent alternatives for any multimedia presentation are synchronized with the presentation.
- (iii) Web pages are designed so that all information conveyed with color is also available without color, for example from context or markup.
- (iv) Documents are organized so they are readable without requiring an associated style sheet.
- (v) Redundant text links are provided for each active region of a server-side image map.

- (vi) Client-side image maps are provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.
- (vii) Row and column headers are identified for data tables.
- (viii) Markup is used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.
- (ix) Frames are titled with text that facilitates frame identification and navigation.
- (x) Pages are designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (xi) A text-only page, with equivalent information or functionality, is provided to make a web site comply with the Access Board Standards (36 CFR Part 1194) when compliance cannot be accomplished in any other way. The content of the text-only page is updated whenever the primary page changes.
- (xii) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script is identified with functional text that can be read by assistive technology.
- (xiii) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page provides a link to a plug-in or applet that complies with 36 CFR 1194.21(a) through (l).
- (xiv) When electronic forms are designed to be completed on-line, the form allows people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
- (xv) A method is provided that permits users to skip repetitive navigation links.
- (xvi) When a timed response is required, the user is alerted and given sufficient time to indicate more time is required.

#### **(4) Telecommunications products.**

- (i) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality provide a standard non-acoustic connection point for TTYs. Microphones are capable of being turned on and off to allow the user to intermix speech with TTY use.

- (ii) Telecommunications products which include voice communication functionality support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.
- (iii) Voice mail, auto-attendant, and interactive voice response telecommunications systems are usable by TTY users with their TTYs.
- (iv) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, give an alert when the time interval is about to run out, and provide sufficient time for the user to indicate more time is required.
- (v) Where provided, caller identification and similar telecommunications functions are also available for users of TTYs, and for users who cannot see displays.
- (vi) For transmitted voice signals, telecommunications products provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain is provided.
- (vii) If the telecommunications product allows a user to adjust the receive volume, a function is provided to automatically reset the volume to the default level after every use.
- (viii) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies is provided.
- (ix) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) is reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.
- (x) Products that transmit or conduct information or communication, will pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques do not remove information needed for access or restore it upon delivery.
- (xi) Products which have mechanically operated controls or keys, comply with the following:
  - (A) Controls and keys are tactilely discernible without activating the controls or keys.

- (B) Controls and keys are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls and keys is 5 lbs. (22.2 N) maximum.
- (C) If key repeat is supported, the delay before repeat is adjustable to at least 2 seconds. Key repeat rate is adjustable to 2 seconds per character.
- (D) The status of all locking or toggle controls or keys is visually discernible, and discernible either through touch or sound.

#### **(5) Video and multimedia products.**

- (i) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, are equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, are be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.
- (ii) Television tuners, including tuner cards for use in computers, are to be equipped with secondary audio program playback circuitry.
- (iii) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, are open or closed captioned.
- (iv) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, are audio described.
- (v) Display or presentation of alternate text presentation or audio descriptions are user-selectable unless permanent.

#### **(6) Self contained, closed products.**

- (i) Self contained products shall be usable by people with disabilities without requiring an end-user to attach assistive technology to the product. Personal headsets for private listening are not assistive technology.
- (ii) When a timed response is required, the user is alerted and given sufficient time to indicate more time is required.

- (iii) Where a product utilizes touch screens or contact-sensitive controls, an input method is provided that complies with 36 CFR 1194.23 (k) (1) through (4).
  - (iv) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, is also provided.
  - (v) When products provide auditory output, the audio signal is provided at a standard signal level through an industry standard connector that will allow for private listening. The product provides the ability to interrupt, pause, and restart the audio at anytime.
  - (vi) When products deliver voice output in a public area, incremental volume control is provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level is user selectable. A function is provided to automatically reset the volume to the default level after every use.
  - (vii) Color coding is not used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
  - (viii) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels is provided.
  - (ix) Products are designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (x) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls comply with the following:
- (A) The position of any operable control is determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length.
  - (B) Where any operable control is 10 inches or less behind the reference plane, the height is 54 inches maximum and 15 inches minimum above the floor.
  - (C) Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height is 46 inches maximum and 15 inches minimum above the floor.
  - (D) Operable controls are not more than 24 inches behind the reference plane.

**(7) Desktop and portable computers.**

- (i) All mechanically operated controls and keys comply with 36 CFR 1194.23 (k) (1) through (4).
- (ii) If a product utilizes touch screens or touch-operated controls, an input method is provided that complies with 36 CFR 1194.23 (k) (1) through (4).
- (iii) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, is also provided.
- (iv) Where provided, at least one of each type of expansion slots, ports and connectors complies with publicly available industry standards.

**(8) Functional performance criteria.**

- (i) At least one mode of operation and information retrieval that does not require user vision is provided, or support for assistive technology used by people who are blind or visually impaired is provided.
- (ii) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 is provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired is provided.
- (iii) At least one mode of operation and information retrieval that does not require user hearing is provided, or support for assistive technology used by people who are deaf or hard of hearing is provided.
- (iv) Where audio information is important for the use of a product, at least one mode of operation and information retrieval is provided in an enhanced auditory fashion, or support for assistive hearing devices is provided.
- (v) At least one mode of operation and information retrieval that does not require user speech is provided, or support for assistive technology used by people with disabilities is provided.
- (vi) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength is provided.

**(9) Information, documentation, and support.**

- (i) Product support documentation provided to end-users is available in alternate formats upon request, at no additional charge.
- (ii) End-users have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.
- (iii) Support services for products accommodate the communication needs of end-users with disabilities.